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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/425,630	10/22/1999	SHINGO HAMADA	400388/TSINT	9818

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EXAMINER

DICKENS, CHARLENE

ART UNIT PAPER NUMBER

2855

DATE MAILED: 06/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/425,670

Applicant(s)

HAMADA et al.

Examiner

DICKENS

Group Art Unit

2855

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

☒ Responsive to communication(s) filed on 6-6-02

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

☒ Claim(s) 1-4 & 6-16 is/are pending in the application.

Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-4 & 6-16 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some\* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other \_\_\_\_\_

Office Action Summary

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 and 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over The Admitted Prior Art (APA) in view of Shockley (US Pat 2,509,889). The APA teaches flow rate measuring device (Figs. 39-45) comprising: a post located in a fluid passage and extending across a part of the fluid flow; a measuring duct (130, 131, 102, 129, 140, 171) having a fluid introduction port with an elongated shape confronting a flow direction of the fluid flow and a first pair of generally smooth, converging inner wall surfaces, narrowing toward a downstream direction of the fluid flow, each of the smooth inner wall surfaces having a profile, in a cross-section parallel to the fluid flow direction and parallel to the post, and a single hole downstream of the fluid introduction port and a flow rate detector (31, 121, 162b) located in the measuring duct wherein the measuring duct has a fluid introduction port (20, 170a) with an

curved elongated shape and confronting a flow direction of the flow, the measuring duct having at least one portion located between the fluid introduction port and the flow rate detector substantially smoothly narrowing, i.e, inner wall surface narrowing, toward a downstream direction of the flow in a longitudinal direction of the elongated shape, and the measuring duct has a single hole in the at least one portion; wherein the introduction port has a length in the longitudinal direction and width in a transverse direction, transverse to the longitudinal direction, the longitudinal length being substantially at least twice the width. However, the APA does not disclose a measuring duct having a first pair of generally smooth converging inner wall surfaces including an inflection point. Shockley discloses a measuring duct having a first pair of generally smooth converging inner wall surfaces including an inflection point (Fig. 2) for the purpose of increasing the thermal sensitivity of thermistors in a an altimeter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a measuring duct having a first pair of generally smooth converging inner wall surfaces including an inflection point in the APA as taught by Shockley for the purpose of increasing the thermal sensitivity of thermistors in a an altimeter.

4. Claims 1-4 and 6-16 are rejected under 35 U.S.C. 103(a) as

being unpatentable over The Admitted Prior Art (APA) in view of Bonne (US Pat 5,249,462). The APA teaches flow rate measuring device (Figs. 39-45) comprising: a post located in a fluid passage and extending across a part of the fluid flow; a measuring duct (130, 131, 102, 129, 140, 171) having a fluid introduction port with an elongated shape confronting a flow direction of the fluid flow and a first pair of generally smooth, converging inner wall surfaces, narrowing toward a downstream direction of the fluid flow, each of the smooth inner wall surfaces having a profile, in a cross-section parallel to the fluid flow direction and parallel to the post, and a single hole downstream of the fluid introduction port and a flow rate detector (31, 121, 162b) located in the measuring duct wherein the measuring duct has a fluid introduction port (20, 170a) with an curved elongated shape and confronting a flow direction of the flow, the measuring duct having at least one portion located between the fluid introduction port and the flow rate detector substantially smoothly narrowing, i.e, inner wall surface narrowing, toward a downstream direction of the flow in a longitudinal direction of the elongated shape, and the measuring duct has a single hole in the at least one portion; wherein the introduction port has a length in the longitudinal direction and width in a transverse direction, transverse to the longitudinal direction, the longitudinal length being substantially at least

twice the width. However, the APA does not disclose a measuring duct having a first pair of generally smooth converging inner wall surfaces including an inflection point. Bonne discloses a measuring duct having a first pair of generally smooth converging inner wall surfaces including an inflection point (Fig. 1) for the purpose of eliminating particle bounces directed toward the flow sensor. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a measuring duct having a first pair of generally smooth converging inner wall surfaces including an inflection point in the APA as taught by Bonne for the purpose of eliminating particle bounces directed toward the flow sensor.


5. Applicant's arguments with respect to the above mentioned claims have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dickens whose telephone number is (703) 305-7047. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist or the customer service


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representative whose telephone numbers are (703) 308-0956 or  
(703) 308-4800 respectively. The fax numbers are (703) 305-3431  
and (703) 305-3432.



cd/dickens  
June 21, 2002



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